

GENERAL LBNL POWER FAILURE RESPONSE EMERGENCY PROCEDURE

APPLICATION

Response to a Hill-wide or isolated power outage. Emergency generators provide power for vital research and facilities equipment until PG&E power is restored. This procedure applies to Facilities electricians and plant maintenance technicians (PMTs).

NOTIFICATION LIST

Outage During Regular Working Hours (7:00 am - 3:30 p.m. Monday — Friday)

A power outage occurring during normal business hours can be reported to the Work Request Center (x6274) or to any of the following personnel in the Electrical Shop (x6023):

- Jim Murphy, Supervisor, x4175
- Bill Mattson, x5974
- Andy Tyrrell, x4899

Outage After Hours

A power outage occurring after regular working hours can be reported to the Plant Operations Office, x5481. The Plant Operations office will call one or more of the following staff electricians:

- Bob Berninzoni, (925) 833-7225
- Jim Murphy, Maintenance Supervisor, (925) 672-7036
- Andrew Tyrrell, Electrician Lead, (510) 376-9167
- Bill Mattson, Construction Coordinator, (510) 785-5230

If there is no response from any of the above, one of the following electrical engineers should be notified:

- Larry Domansky, (707) 447-1348
- Virgil Alonzo, (510) 232-4521

WORK STEPS

Preliminary Assessment of Outage and Response

The Electrical Shop Supervisor/Lead or Maintenance Supervisor shall:

1. Identify affected area/extent of outage.
2. If the outage is confined to one building or a small area, refer to the power outage procedure for that building. (See next paragraph, "Power Outage Response by Building.")
3. If the outage is extensive or Lab-wide, establish priorities for restoring power to the Lab.

Power Outage Response by Building

- This work step lists (by building number) buildings, their associated emergency generators, the systems powered by the generators, and the required actions, if any. No priority is indicated by the list.
- If a building is not on this list, it is because there is no emergency generator at that location and no specific actions are required.

| Bldg | Emergency Generator | Actions |
|------|--|--|
| 2 | 02-EG-068 Roof VFDs. Emergency lighting. | Check for automatic start. Check for passengers trapped in the elevator. IF needed – call Amtech 1-800-310-1397. See EMRG-009 (2/50/54/70/70A area) for outage procedure & power check after restoration. |
| 6 | 37-EG-073 | Check for automatic start. Check for passengers trapped in elevator. IF needed – call Amtech 1-800-310-1397. |
| 10A | 10A-EG-080 ICS backup power. | Check for automatic start. |
| 26 | 48-EG-100 Backup power for medical equipment. | Check for automatic start. See EMRG-056 for outage procedure & power check after restoration. |
| 28 | 48-EG-100 Backup power for radio communications. | Check for automatic start. |
| 34 | 37-EG-073 Backup power for lighting. | Check for automatic start. |
| 37 | 37-EG-073 Backup power for lighting | See EMRG-003 for outage procedure (2-person procedure). |
| 43 | 43-EG-072 Backup air compressor power. | Check for automatic start. See EMRG-006 for outage procedure. See EMRG-003 for power check after restoration (2-person procedure). |
| 48 | 48-EG-100 | Check for automatic start. See EMRG-056 for outage procedure. |
| 50 | | Check for passengers trapped in elevator. IF needed – call Amtech 1-800-310-1397. See EMRG-009 for outage procedure & power check after restoration. |
| 50A | 50A-EG-101 Emergency power for ICS Node 1 | Check for automatic start. (ICS Node 1 is in Bldg 50A.) Check for passengers trapped in the elevator. IF needed – call Amtech 1-800-310-1397. See EMRG-009 for outage procedure & power check after restoration. |
| 50B | 50B-EG-095 Power for emergency lighting in stairwells, computer rooms, ESNet areas. | Check for automatic start. Check for passengers trapped in the elevator. IF needed – call Amtech 1-800-310-1397. See EMRG-009 for outage procedure & power check after restoration. |
| 50C | | No action is required. See EMRG-009 for outage procedure & power check after restoration. |
| 50D | | No action is required, building is seismically unsafe, do not enter. |
| 50E | | Check for passengers trapped in handicap lift. See EMRG-009 for outage procedure & power check after restoration. Reset AHU's (heating/cooling) when normal power has been restored. |

| Bldg | Emergency Generator | Actions |
|-------|---|---|
| 50F | | Check for passengers trapped in handicap lift. See EMRG-009 for outage procedure & power check after restoration. Reset AHU's (heating/cooling) when normal power has been restored. |
| 54 | | Shut off plant equipment & monitor refrigerators. See EMRG-009 for outage procedure. Barton Security is responsible to check refrigerators per EMRG-015. See EMRG-009 for power check after restoration. |
| 55/56 | 55-EG-069 Backup power for research equipment. | Check for automatic start. Check for passengers trapped in elevator. IF needed – call Amtech 1-800-310-1397. |
| 62 | 62-EG-102 Backup power for fume hoods & emergency lights. | Check for automatic start. Check for passengers trapped in the elevator. IF needed – call Amtech 1-800-310-1397. |
| 62B | 62B-EG-081 Backup ICS power. | Check for automatic start. |
| 66 | 66-EG-109 Backup power for fume hoods & emergency lights. | Check for automatic start. Check for passengers trapped in the elevator. IF needed – call Amtech 1-800-310-1397. |
| 67 | 67-EG-110 Backup power for fume hoods & emergency lights. | Check for automatic start. Check for passengers trapped in the elevator. IF needed call OTIS – 1-800-233-6847 Bldg. SK448837. |
| 70 | 70-EG-106 Emergency power for MCC Boiler Room, MCC Penthouse, emergency power & lighting. | Automatic start. Check elevators & handicap lift at Bldg 54 for trapped passengers. IF needed – call Amtech 1-800-310-1397. See EMRG-009 for outage procedure & power check after restoration. |
| 70A | 70A-EG-017 Emergency power for equipment on emergency circuits only ; hoods, glove boxes, all important equipment. | Check for automatic start. Check for passengers trapped in the elevator. IF needed – call Amtech 1-800-310-1397. See EMRG-009 for outage procedure & power check after restoration. |
| 72 | 72-EG-098 | Check for automatic start. |
| 72C | EL-1-72C | Check for passengers trapped in the elevator. IF needed – call Amtech 1-800-310-1397. |
| 74 | 74-EG-061 Backup power for research equipment & HVAC. | Check for automatic start. Check for passengers trapped in the elevators. IF needed – call Amtech 1-800-310-1397. See EMRG-016 for outage procedure. |
| 75 | 75-EG-089 | No action — do not enter until EH&S clears it. |
| 76 | 48-EG-100 Emergency lighting, EMCS & SCADA. | Check for automatic start. See EMRG-056 for outage procedure & power check after restoration. |




| Bldg | Emergency Generator | Actions |
|--------|---|--|
| 77 | 77-EG-094 Emergency lighting. | Check for automatic start. |
| 83 | 74-EG-061 Backup power to research equipment. | |
| 84/84B | 84B-EG-099 | Check for automatic start. Check for passengers trapped in elevators EL-1-84 & EL-2-84. IF needed – call Amtech 1-800-310-1397. |
| 85/86 | 85-EG-096 | Check for automatic start. Check for passengers trapped in elevator EL-1-85 IF needed – call Amtech 1-800-310-1397. |
| 88 | 88-EG-090 | Check for automatic start. Check KC-4-88 for automatic start. See EMRG-060 & EMRG-063 for outage procedure. See EMRG-061 for power check after restoration. |
| 90 | 55-EG-069 | Check for passengers trapped in the elevator. IF needed – call Amtech 1-800-310-1397. |

REFERENCES

None.

RESPONSIBILITIES & CONTROLS

Completion of the following signature lines constitutes approval of this procedure:

| REV NO. | SME | REVIEWED BY | APPROVED BY / DATE | REVISION DATE |
|------------|---|---|---|------------------|
| 3 |  Elec Shop Supv |  Chief Elec Eng |  6-21-07 Plant Ops Mgr | 6/8/07 |
| | J. Murphy (Print Name) | LAWRENCE D. DOMANSKY (Print Name) | Robert A. Berz (Print Name) | EMRG-045 |